Editorial

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Biographical notes: Wei Fang received his PhD in Information Technology and Engineering of Light Industry from Jiangnan University, Wuxi, China, in 2008. He is a Professor of Computer Science at Jiangnan University. He was a Visiting Scholar at the CEACIA, University of Birmingham, Birmingham, UK from April 2013 to April 2014. He has published more than 50 scientific papers in journals and international conferences. His current research interests involve the evolutionary computation, swarm intelligence, multi-objective optimisation, and large-scale global optimisation. He serves as an editorial board member of *International Journal of Swarm Intelligence Research* and *International Journal of Computing Science and Mathematics*.

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During urbanisation, several challenges have been raised and should be addressed, such as population explosion, rising levels of pollution, exponential growth of data, high cost of living, etc. It seriously affects the sustainable development of the economic society. To construct the smart city is a possible way to face these challenges and can improve the quality of citizens' life and the economic growth as well. New-generation technologies have been used extensively in smart city, such as cloud computing, internet of things, big data, artificial intelligence, computational intelligence, etc. This special issue will focus on the new-generation technologies for smart cities development.

The special issue on 'Artificial intelligence facilities smart cities development' includes three extended papers from the Third International Smart Cities Conference (ISC2 2017). ISC2 2017 is the flagship conference co-sponsored by the IEEE Smart Cities Initiative, IEEE Power & Energy Society, Wuxi Municipal Commission of Economy and Information, National Center for Schooling Development Programme of MOE, Jiangnan University, and IEEE China Section. As a world-class conference ISC2 2017 brings together researchers and practitioners in the field of smart city, including scholars, citizens, policy makers, administrators, infrastructure operators, industry representatives, economists, sociologists and academicians.

ISC2 2017 was held in Wuxi, China on September 14–17, 2017. The conference has attracted 178 submissions from authors of 26 different countries and regions. With the guideline of the technical program co-chairs, 94 papers were accepted for publication in the proceedings.

The three extended papers for this special issue were chosen from among all the accepted papers by the special issue guest editors Wei Fang and Xiaojun Wu. The extended papers have been revised and added at least 30% new material and also been reviewed through the normal review process of *International Journal of Bio-Inspired Computation*.

The three extended papers in this special issue cover the feedback control of autonomous vehicles, smart garbage collection management, and computer vision based on deep learning. In 'Time-to-contact control: improving safety and reliability of autonomous vehicles', the authors provide time-to-contact (TTC) feedback control to improve safety and reliability of autonomous vehicles, where TTC is estimated by machine vision technologies. In 'SmartGC: a software architecture for garbage collection in smart cities', the authors devise a smart garbage collection management system, which is called SmartGC, based on the concept of artificial transportation systems. In 'A novel squeeze YOLO-based real-time people counting approach', the authors propose a new real-time people counting method, which is named squeeze YOLO-based people counting (S-YOLO-PC), by introducing the fire layer of SqueezeNet to optimise the network structure of YOLO.

We hope that the readers enjoy this special issue.